

Claims

[1] A device for restraining rise of a step roller of an escalator, the escalator including steps circulating a closed loop, a track having inner and outer rails and providing the circulating loop of the steps, and a step roller connected to each step and rolling along the inner rail of the track, the device comprising: a supplementary roller disposed between the outer rail and the inner rail of the track; and an elastic member for connecting the supplementary roller to the step.

[2] The device of Claim 1, wherein the device further comprises a supporting block which is connected to the step and to which the elastic member is fixed.

[3] The device of Claim 2, wherein the elastic member biases the supplementary roller toward the outer rail of the track to roll thereon.

[4] The device of Claim 3, wherein the elastic member is a linear spring having a first leg and a second leg, the first leg and the second leg being bent with respect to each other by a predetermined angle; and the supporting block has first and second recesses, each portion of the first and second legs of the elastic member being respectively fitted to the first and second recesses to thereby limit deformation of the first and second legs of the elastic member to a predetermined range.

[5] The device of Claim 4, wherein the first leg of the elastic member has a bent portion at its tip, the tip being pivotably inserted into the supporting block; and the second leg of the elastic member has a bent portion at its tip, the tip being configured to contact a bottom surface of the supporting block.

[6] The device of Claim 4, wherein a cover is mounted to the supporting block to prevent the first and second legs of the elastic member from being separated from the first and second recesses of the supporting block.

[7] The device of Claim 4, wherein the device further comprises a member for supporting the supplementary roller, the member having a recess in which a portion adjacent to the junction between the first and second legs of the elastic member is fitted, and a cover which covers the recess of the member.